

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 May 2004 (21.05.2004)

PCT

(10) International Publication Number
WO 2004/043092 A1

(51) International Patent Classification⁷: **H04Q 7/22,**
H04L 12/56

(21) International Application Number:
PCT/CA2003/000875

(22) International Filing Date: 16 June 2003 (16.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/423,371 4 November 2002 (04.11.2002) US

(71) Applicant (for all designated States except US): **RE-
SEARCH IN MOTION LIMITED** [CA/CA]; 295 Phillip
Street, Waterloo, Ontario N2L 3W8 (CA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ZHAO, Wen**

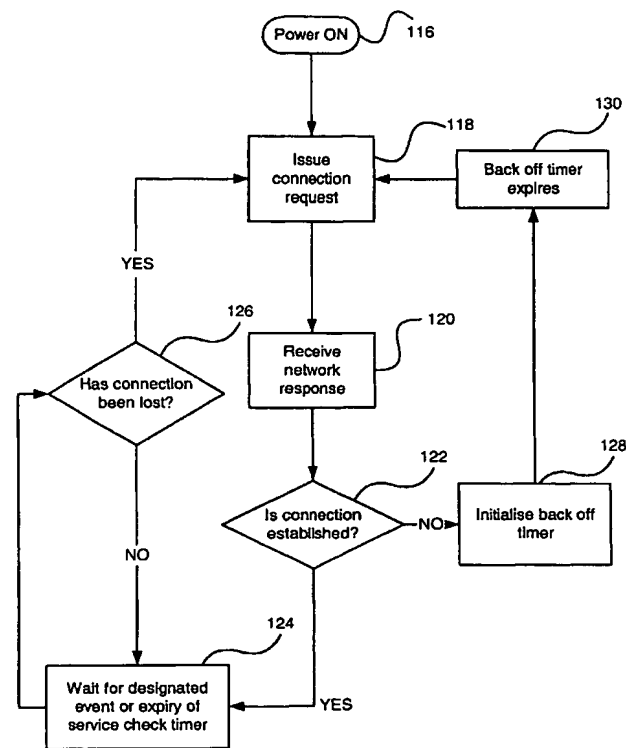
[CA/CA]; 27 Wynridge Place, Kanata, Ontario K2M 2S8
(CA). **CHAUDRY, Shahid, R.** [CA/CA]; 12 Berchin
Cres., Ottawa, Ontario K2W 1E4 (CA). **PLESTID, T., L.,**
Trevor [CA/CA]; 180 Bradford Street, Ottawa, Ontario
K2B 5Z4 (CA). **XUE, Hao** [CN/CA]; Unit 1, #1328
Maitland Ave., Ottawa, Ontario K2C 2C7 (CA). **YEUNG,**
Grace, T., Y. [CA/CA]; 18 Deerfield Drive, Apt.1208,
Nepean, Ontario K2L 4G1 (CA). **YANOSHEWSKI,**
Clifford, W. [CA/CA]; 242 Romulus Private, Ottawa,
Ontario K1K 3Y2 (CA).

(74) Agents: **PATHIYAL, Krishna, K.** et al.; Research In Mo-
tion Limited, 295 Phillip Street, Waterloo, Ontario N2L
3W8 (CA).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR MAINTAINING A WIRELESS DATA CONNECTION



(57) Abstract: A system and method for establishing and maintaining an "always-on" data connection to a wireless network through the use of a back off timer and a service check timer is disclosed. The back off timer is initialized to a determined value when a connection is not established. When the timer expires, a connection attempt is made. As further connection attempts are made, the back off timer is set to ever-increasing values. When the data connection is established, the service check timer is initialized. The data connection status is determined at the expiry of the service check timer. When, at the expiry of the service check timer, the data connection is determined to be lost, the connection method is employed.

WO 2004/043092 A1